

WHAT IS CLAIMED IS:

1. A method of dynamically checking a resource control associated with newly added software to an operating system, the method comprising:

5 encountering the newly added software and the associated resource control by an entity in the operating system;

determining whether a resource associated with the resource control is active;

determining whether usage of the resource by the entity exceeds a limiting value stored in the resource control, wherein one or more actions are triggered if the limiting value 10 is exceeded;

granting the resource to the entity if the limiting value has not been exceeded;

resetting the limiting value of the resource control to another threshold value, wherein the entity has an arbitrary number of limiting values associated with the resource 15 control.

15 2. A method as recited in claim 1 further comprising the entity searching a first set of resource controls to locate the resource control.

20 3. A method as recited in claim 2 further comprising the entity searching a second set of resource controls associated with a plurality of entities to locate the resource control.

4. A method as recited in claim 1 further comprising determining whether a resource associated with the resource control is active.

25 5. A method as recited in claim 1 further comprising loading the resource control from a global set of controls to a local set of controls associated with the entity.

6. A method as recited in claim 1 further comprising notifying a plurality of other entities when there is a violation of a limiting value by the entity.

FO5704 23058760

7. A method as recited in claim 1 wherein an entity is one of a process, task, and a project in the operating system.

8. A method as recited in claim 1 wherein encountering the newly added software and  
5 the associated resource control by an entity in the operating system further includes  
registering the resource controls associated with the newly added software with the operating  
system.

9. A method as recited in claim 1 further comprising manually changing the limiting  
10 value as desired.

10. A system for dynamically checking a resource control associated with newly added  
software to an operating system, the apparatus comprising:

means for recognizing the newly added software and the associated resource control  
15 by an entity in the operating system;

means for determining whether a resource associated with the resource control is  
active;

means for determining whether usage of the resource by the entity exceeds a limiting  
value stored in the resource control, wherein one or more actions are triggered if the limiting  
20 value is exceeded;

means for granting the resource to the entity if the limiting value has not been  
exceeded;

means for resetting the limiting value of the resource control to another threshold  
value, wherein the entity has an arbitrary number of limiting values associated with the  
25 resource control.

11. A computer-readable medium containing programmed instructions arranged to  
dynamically check a resource control associated with newly added software to an operating  
system, the computer-readable medium including programmed instructions for:

30 encountering the newly added software and the associated resource control by an  
entity in the operating system;

determining whether a resource associated with the resource control is active;

09725022-021501

determining whether usage of the resource by the entity exceeds a limiting value stored in the resource control, wherein one or more actions are triggered if the limiting value is exceeded;

5 granting the resource to the entity if the limiting value has not been exceeded;

resetting the limiting value of the resource control to another threshold value, wherein the entity has an arbitrary number of limiting values associated with the resource control.

12. A system for dynamically checking a resource control associated with newly added software to an operating system comprising:

one or more processors; and

a computer readable medium storing a program for execution by the one or more processors comprising:

15 computer code that recognizes the newly added software and the associated resource control by an entity in the operating system;

computer code that determines whether a resource associated with the resource control is active;

computer code that determines whether usage of the resource by the entity exceeds a limiting value stored in the resource control, wherein one or more actions are triggered if the limiting value is exceeded;

computer code that grants the resource to the entity if the limiting value has not been exceeded;

computer code that resets the limiting value of the resource control to another threshold value, wherein the entity has an arbitrary number of limiting values associated with the resource control.

13. A method for dynamically adding a resource to an operating system wherein the resource has a variable number of limits comprising:

executing a process request for a resource that has a plurality of control values;

30 searching in a local set of resources corresponding to the entity;

determining whether a usage value is greater than a control value from the local set;  
and  
determining whether a user has a privilege status for the resource.

5 14. The method of claim 13 further comprising :

where the usage value is greater than a control value from the local set, approving the  
grant of the resource control and where the usage value is less than the control value, making  
a further determination as to whether the action is contained within a global set.

10 15. The method of claim 14 further comprising:

denying the resource to the requesting party where the action is not global, and  
setting the resource control to the next lowest action where the action is determined  
to be contained within a global set.

15 16. The method of claim 13 further comprising loading the attributes from a global  
set to the local set where the control resource is not found in the local set.

20 17. The method of claim 13 further comprising determining, after the resource is  
found in the local set or loaded into the local set, whether the identification number of the  
control resource is still active.

18. The method of claim 13 further comprising registering the resource when first  
introducing it to the operating system.

19. The method of claim 18 wherein registration comprises:

loading and initializing the module containing the resource control,  
storing certain control values for the module,  
executing custom functions for the model,  
5 obtaining an identification number for the control resource, and  
placing the new resource control in the global set.

09785022-021501